

Amendment to the Claims:

In compliance with the Revised Amendment Format, a complete listing of claims is provided herein.

1-2. (Cancelled)

3. (Currently amended) [The method of claim 2,] A method of determining a clock signal relative to data, said method comprising:

receiving a plurality of data units in parallel over a plurality of optical fibers of a link, wherein said plurality of data units have a relationship with one another, and wherein at least one data unit of the plurality of data units comprises data and clock information;

obtaining from the at least one data unit of said plurality of data units a clock signal;

adjusting the clock signal relative to a selected position of at least one data unit of said plurality of data units; and

using the adjusted clock signal to regulate a flow of output of one or more data units of the plurality of data units, wherein the one or more data units are output in parallel, and wherein the output is from one or more analog-to-digital converters coupled to one or more optical receivers receiving the one or more data units over one or more optical fibers of the plurality of optical fibers.

4-9. (Cancelled)

10. (Currently amended) [The method of claim 1,] A method of determining a clock signal relative to data, said method comprising:

receiving a plurality of data units in parallel over a plurality of optical fibers of a link, wherein said plurality of data units have a relationship with one another, and

-3-

**POU920000087US1**

wherein at least one data unit of the plurality of data units comprises data and clock information;

obtaining from the at least one data unit of said plurality of data units a clock signal; and

adjusting the clock signal relative to a selected position of at least one data unit of said plurality of data units, wherein the selected position is a middle position of at least one data unit.

11-19. (Cancelled)

20. (Currently amended) [The receiver portion of claim 19, further comprising] A receiver portion of a communications link comprising:

a plurality of optical fibers to receive a plurality of data units in parallel, wherein the plurality of data units have a relationship with one another, and wherein at least one data unit of the plurality of data units comprises data and clock information;

an adjust unit to adjust a clock signal relative to a selected position of at least one data unit of said plurality of data units, wherein said clock signal is obtained from the at least one data unit of the plurality of data units;

a plurality of optical receivers coupled to said plurality of optical fibers to receive said plurality of data units from said plurality of optical fibers; and

one or more analog-to-digital converters coupled to one or more optical receivers of said plurality of optical receivers to output one or more data units.

21. (Original) The receiver portion of claim 20, wherein the adjusted clock signal is used to regulate a flow of output from the one or more analog-to-digital converters.

22. (Cancelled)

23. (Currently amended) [The receiver portion of claim 22, further comprising] A receiver portion of a communications link comprising:

a plurality of optical fibers to receive a plurality of data units in parallel, wherein the plurality of data units have a relationship with one another, and wherein at least one data unit of the plurality of data units comprises data and clock information;

an adjust unit to adjust a clock signal relative to a selected position of at least one data unit of said plurality of data units, wherein said clock signal is obtained from the at least one data unit of the plurality of data units;

a plurality of optical receivers coupled to said plurality of optical fibers to receive said plurality of data units from said plurality of optical fibers;

a phase lock loop coupled to at least one optical receiver of said plurality of optical receivers to recover from said at least one data unit the clock signal to be adjusted; and

a comparator coupled to said phase lock loop to determine an offset of an edge of the clock signal with respect to at least one edge of at least one data unit, wherein the offset is usable by the adjust unit.

24. (Original) The receiver portion of claim 23, wherein said comparator is adapted to determine a plurality of offsets with respect to a plurality of data units and to average the offsets to determine an average offset usable by the adjust unit.

25-29. (Cancelled)

30. (Currently amended) [The receiver portion of claim 18.] A receiver portion of a communications link comprising;

a plurality of optical fibers to receive a plurality of data units in parallel, wherein the plurality of data units have a relationship with one another, and wherein at least one data unit of the plurality of data units comprises data and clock information;

an adjust unit to adjust a clock signal relative to a selected position of at least one data unit of said plurality of data units, wherein said clock signal is obtained from the at

-5-

**POU920000087US1**

least one data unit of the plurality of data units, and wherein the selected position is a middle position of at least one data unit.

31-38. (Cancelled)

39. (Currently amended) [The receiver portion of claim 37, further comprising] A receiver portion of a communications link comprising:

optical means for receiving a plurality of data units in parallel, wherein the plurality of data units have a relationship with one another, and wherein at least one data unit of the plurality of data units comprises data and clock information; and

means for adjusting a clock signal relative to a selected position of at least one data unit of the plurality of data units, wherein the clock signal is obtained from the at least one data unit of the plurality of data units; and

means for determining an offset of an edge of the clock signal with respect to at least one edge of at least one data unit, wherein the offset is usable by the means for adjusting.

40-41. (Cancelled)

42. (Previously presented) A method of determining a clock signal relative to data, said method comprising:

receiving a plurality of data units in parallel over a plurality of optical fibers of a link, wherein said plurality of data units have a relationship with one another;

obtaining from at least one data unit of said plurality of data units a clock signal; and

adjusting the clock signal relative to a selected position of at least one data unit of said plurality of data units, wherein the selected position is a middle position of at least one data unit.

-6-

POU920000087US1

43. (Previously presented) A receiver portion of a communications link comprising:

a plurality of optical fibers to receive a plurality of data units in parallel, wherein the plurality of data units have a relationship with one another;

an adjust unit to adjust a clock signal relative to a selected position of at least one data unit of said plurality of data units, wherein said clock signal is obtained from at least one data unit of the plurality of data units, and wherein the selected position is a middle position of at least one data unit.

44. (Previously presented) A method of determining a clock signal relative to data, said method comprising:

receiving a plurality of data units in parallel over a plurality of optical fibers of a link, wherein said plurality of data units have a relationship with one another;

obtaining from at least one data unit of said plurality of data units a clock signal;

adjusting the clock signal relative to a selected position of at least one data unit of said plurality of data units;

using the adjusted clock signal to regulate a flow of output of one or more data units of the plurality of data units, wherein the one or more data units are output in parallel, and wherein the output is from one or more analog-to-digital converters coupled to one or more optical receivers receiving the one or more data units over one or more optical fibers of the plurality of optical fibers.

45. (Previously presented) A receiver portion of a communications link comprising:

a plurality of optical fibers to receive a plurality of data units in parallel, wherein the plurality of data units have a relationship with one another; and

an adjust unit to adjust a clock signal relative to a selected position of at least one data unit of said plurality of data units, wherein said clock signal is obtained from at least one data unit of the plurality of data units;

-7-

**POU920000087US1**

a plurality of optical receivers coupled to said plurality of optical fibers to receive said plurality of data units from said plurality of optical fibers; and

one or more analog-to-digital converters coupled to one or more optical receivers of said plurality of optical receivers to output one or more data units.

46. (Previously presented) The receiver portion of claim 45, wherein the adjusted clock signal is used to regulate a flow of output from the one or more analog-to-digital converters.

47. (Previously presented) A receiver portion of a communications link comprising:

a plurality of optical fibers to receive a plurality of data units in parallel, wherein the plurality of data units have a relationship with one another;

an adjust unit to adjust a clock signal relative to a selected position of at least one data unit of said plurality of data units, wherein said clock signal is obtained from at least one data unit of the plurality of data units;

a plurality of optical receivers coupled to said plurality of optical fibers to receive said plurality of data units from said plurality of optical fibers;

a phase lock loop coupled to at least one optical receiver of said plurality of optical receivers to recover from said at least one data unit the clock signal to be adjusted; and

a comparator coupled to said phase lock loop to determine an offset of an edge of the clock signal with respect to at least one edge of at least one data unit, wherein the offset is usable by the adjust unit.

48. (Previously presented) The receiver portion of claim 47, wherein said comparator is adapted to determine a plurality of offsets with respect to a plurality of data units and to average the offsets to determine an average offset usable by the adjust unit.

-8-

**POU920000087US1**

49. (Previously presented) A receiver portion of a communications link comprising:

optical means for receiving a plurality of data units in parallel, wherein the plurality of data units have a relationship with one another; and

means for adjusting a clock signal relative to a selected position of at least one data unit of the plurality of data units, wherein the clock signal is obtained from at least one data unit of the plurality of data units; and

means for determining an offset of an edge of the clock signal with respect to at least one edge of at least one data unit, wherein the offset is usable by the means for adjusting.

50. (Previously presented) The receiver portion of claim 49, wherein the adjusted clock signal is used to regulate a flow of output of one or more of the data units.

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